

ABSTRACT OF DISCLOSURE

Disclosed is a wavelength stabilizing method in which a first QCSE photodetector and a second QCSE photodetector receive a light outputted from a single light source, a first wavelength-photocurrent graph obtained when a selected bias voltage is applied to the first QCSE photodetector and a second wavelength-photocurrent graph obtained when a selected bias voltage is applied to the first QCSE photodetector are overlapped at a predetermined reference wavelength, a photocurrent outputted from the first QCSE photodetector is greater than a photocurrent outputted from the second QCSE photodetector at wavelengths shorter than the overlapped point while the photocurrent outputted from the second QCSE photodetector is greater than the photocurrent outputted from the first QCSE photodetector at wavelengths longer than the overlapped point, and if the photocurrent outputted from the first QCSE photodetector is greater than the photocurrent output from the second QCSE photodetector, output wavelengths are moved to the longer wavelengths side from the single light source, while if the photocurrent outputted from the second QCSE photodetector is greater than the photocurrent outputted from the first QCSE photodetector, the output wavelengths are moved to the shorter wavelengths side, thereby allowing the light outputted from the single light source to maintain the reference wavelength.